

**PHASE RECOVERY FILTERING TECHNIQUES FOR SCP THROUGHPUT  
SHORTAGE**

**ABSTRACT OF THE DISCLOSURE**

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This invention introduces innovative filtering techniques to recover the instability phase margin loss due to time delay induced from a throughput shortage problem of a spacecraft central processor (SCP). This invention relates to digital control systems and, more particularly, to a phase recovery  
10 filtering technique to alleviate spacecraft central computer processor or (SCP) throughput shortages. This filtering technique recovers the unstable phase margin loss due to the time delay caused by the SCP throughput problem. The filtering techniques may be accomplished without schedule slip or extra cost to the project.